

Syllabus GEO 360 Cartography Fall 2014

September 29, 2014

Instructor

Dr. Bernhard Jenny Wilkinson 204 jennyb@geo.oregonstate.edu

Teaching Assistant

Jane Darbyshire Wilkinson 204 darbyshj@onid.oregonstate.edu

Class Schedule

Lecture: Wilkinson 235 Tuesday and Thursday 1:00–1:50 PM
Lab, Section 010: Wilkinson 210 Tuesday and Thursday 10:00–11:50 AM
Lab, Section 011: Wilkinson 210 Monday and Friday 11:00 AM–12:50 PM

Credits

4 credits: 2 lecture hours, 4 lab hours

Short Course Description

Basic cartographic principles. Design and construction of maps.

Course Web Site

Blackboard: <http://my.oregonstate.edu>

Textbook

Map Use, by A. J. Kimerling, A. R. Buckley, P. C. Muehrcke, J. O. Muehrcke, edition 6 or 7.

Course Learning Objectives

The main objective of this course is to teach you professional mapmaking skills that will allow you to design convincing maps. The main objective is not to teach you how to use GIS or graphics software. However, being familiar with software tools is essential to create effective maps.

After completing GEO 360, students will understand and be comfortable with applying cartographic design principles; applying basic layout and typography principles; selecting map projections and coordinate systems for maps at various scales; selecting and applying statistical mapping methods; understanding principles of cartographic generalization; mapping terrain from digital elevation data; using professional raster and vector graphics software (Adobe Illustrator and Adobe Photoshop); and creating maps with ArcGIS.

Map critique is essential to becoming a better map maker. You should become able to critique maps created by others and come up with ideas as to how maps can be improved. Constructive criticism and map improvements based on criticism will be essential parts of this course.

Laboratory Assignments

You will design a series of maps using Adobe Illustrator, Adobe Photoshop and ArcGIS, which will require a lot of lab time and extra work on your part. Design principles discussed during previous lectures must be applied to every map you create, even if not explicitly required in the instructions.

Lab assignments are to be submitted electronically to Blackboard. Efforts will be made to have them graded and returned within one week after they are submitted. Late assignments will not be accepted and will receive 0 points.

Course Schedule

Week	Lecture Topics	Reading Assignments	Mapping Assignment
1	Introduction Guest lecture by Martin Gamache, senior cartographer at National Geographic		1: Reser Stadium map
2	Map types and scale. Visual variables Symbolization of points, lines, areas	Introduction: XV–XXVIII Map Scale: 22–33	2: ArcGIS introduction
3	Visual hierarchy and layout Typography and label placement	Visual variables 131–136, 147–148	3: Corvallis overview map
4	Data types, classification and diagrams.	Quantitative data: 146–156 Quantitative thematic maps: 156–182	4: Corvallis thematic map
5	Coordinate systems and map projections (1)	The earth and earth coordinates: 4–21 Map projections: 34–61	5: Hawaii map
6	Coordinate systems and map projections (2)	Grid coordinate systems: 62–81	6: ArcGIS thematic maps
7	Coordinate systems and map projections (3)	Land partitioning: 82–99	7: Greenland map
8	Terrain visualization Cartographic generalization	Relief portrayal: 100–125 Cartographic abstraction: 207–212	8a: Oregon map
9	Exam (Nov. 25), Thanksgiving (Nov. 27 & 28)		8b: Oregon map
10	Discussion of lab results.		8c: Oregon map

Office Hours

Please address questions about lab assignments to the teaching assistants and instructor during lab hours. Students are requested to ask questions during lectures if presented materials need additional explanation. The teaching assistant has office hours Thursday from 4–5 PM in Wilkinson 204 or 210. The instructor is available by appointment outside of lecture hours.

Reading Assignments

Reading assignments are required for almost all lectures (see table in Course Schedule). Students must complete the readings before attending the corresponding lecture.

Late Midterm Exam

There will be no final exam.

A late midterm exam will take place Tuesday, 25 November 2014, 1:00–1:50 PM in Wilkinson 235. This is a proctored written exam.

It is highly recommended students take notes during lectures because important information presented during lectures is not covered by the textbook. No study sheet will be provided. It is highly recommended students regularly review lecture materials throughout the term so they can get help with difficult concepts early and are not overwhelmed before the exam.

Grading

Eight maps will be created during lab hours and graded by the teaching assistant and the instructor. The final grade will be computed from map grades and the midterm exam as follows:

- Assignments 1, 2, 3, and 4 will each count 5% towards the final grade.
- Assignment 5, 6, and 7 will each count 10% towards the final grade.
- Assignment 8 will count 25% towards the final grade.
- The midterm exam will count 25% towards the final grade.

Grades are based on the percentage of maximum points accumulated and assigned according to this table:

A	92–100%	B+	88–89%	C+	78–79%	D+	68–69%	F	<60%
A-	90–91%	B	82–87%	C	72–77%	D	62–67%		
		B-	80–81%	C-	70–71%	D-	60–61%		

Disability Accommodation

Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 737-4098.

Student Conduct, Plagiarism Policy

Dishonesty will not be tolerated. Assignments and projects must consist of students' original work. Students are encouraged to get help from the instructor, TAs, and fellow classmates, but must not copy map elements or substantial design elements from their classmates. If you copy anybody else's work, you will be given a score of zero and the incident will be reported to the school. If you have any questions about what constitutes plagiarism or "cheating," ask the instructor or teaching assistant. Students are expected to follow the OSU Student Code of Conduct posted at <http://oregonstate.edu/studentconduct/achon.htm>